



MEI TECHNOLOGIES

Merging Excellence and Innovation

“Goddard Contractor Excellence Award”

Small Business Services Winner

October 14, 2009

Dwight Yoder

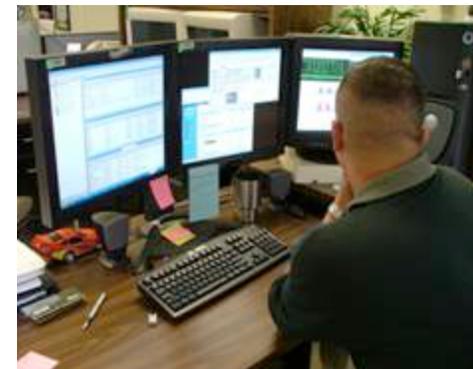
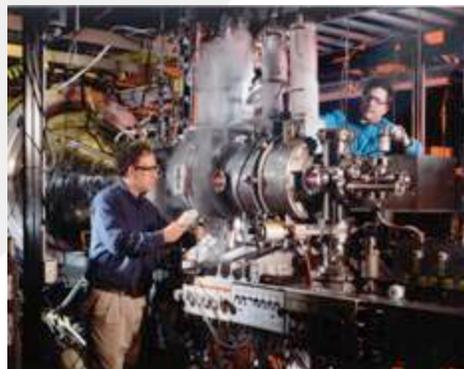
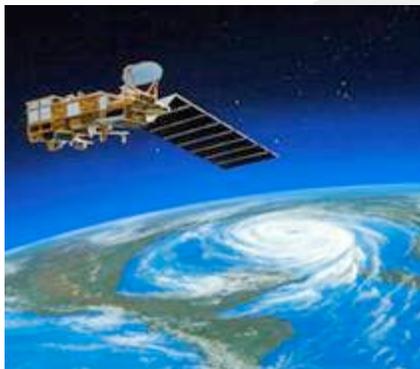
ESES Deputy Program Manager

Overview

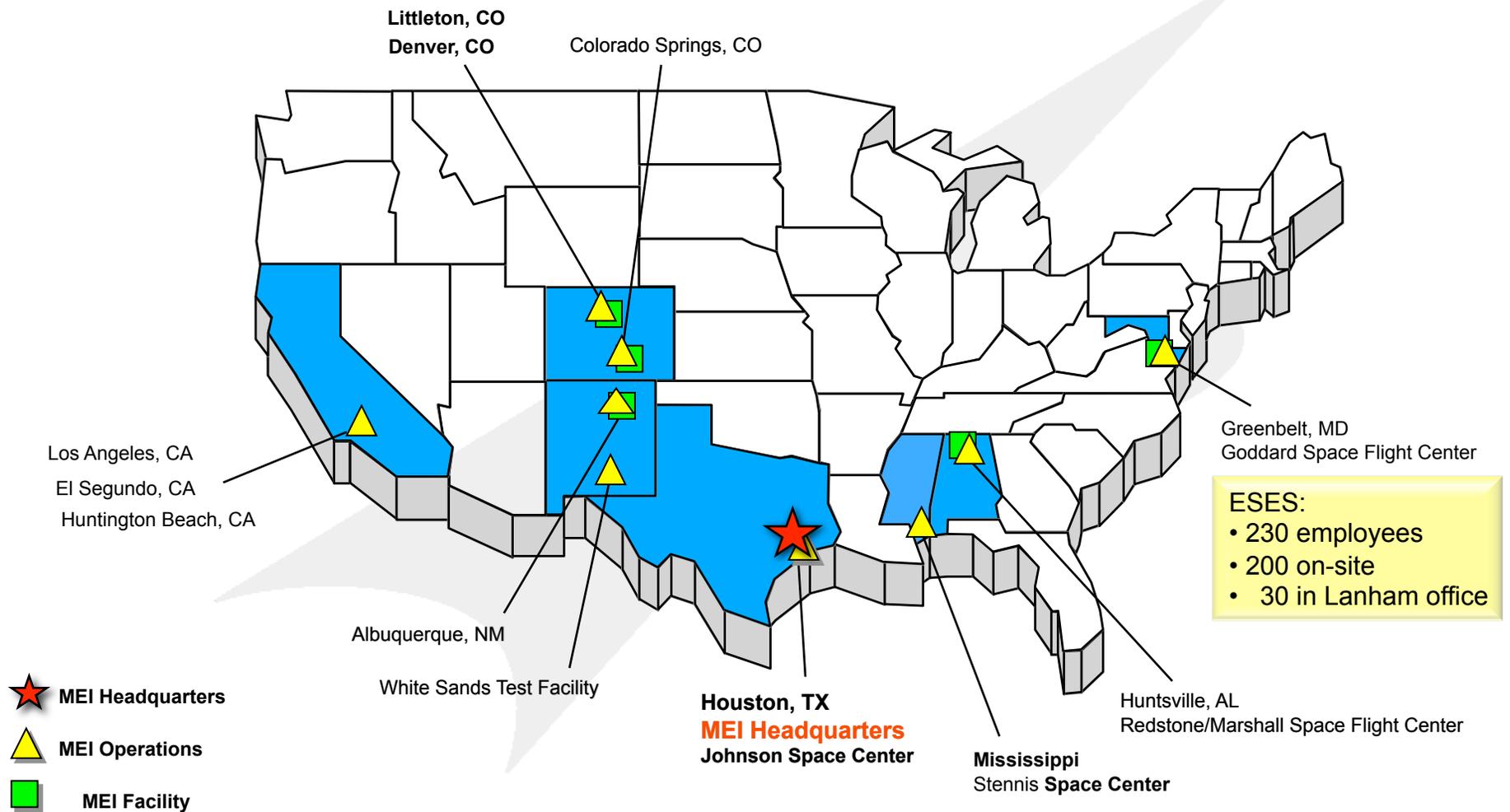
- *MEI Technologies - The company*
- *Process - From Application to Award*
- *Continuous Improvement - Examples*
- *Award - What it means to MEI Technologies*

MEI Technologies Corporate Overview

- MEI Technologies is a technology-focused provider of innovative engineering and information technology product/services solutions in the public and private sectors.
- Primary markets:
 - Aerospace
 - Information Technology
 - Biotechnology
 - Optics
- Currently over 780 employees; ~230 ESES



MEI Technologies, Inc. Locations



The “Excellence Award” Process

- Applied previous 07, 08 (selected for Site Visits) – did not win.
- Many Improvements were made – did we increase our chance to win in 2009?
- Key Question: Could we provide evidence the improvements made a difference?
 - Could we show: *“the improvement we wanted to make”?*
 - Could we demonstrate: *“the process change that was made”?*
 - Could we measure: *“the improvement as a result of the change”?*
- Submitted written application (~ 7 pages) – Notified selected for Site Visit.
- Formed Team to prepare for Site Visit (~2 week effort):
 - Local Team
 - Corporate Involvement
- Site Visit – 1/2 day.
- Notified selected as one of two Small Business Winners (also a winner at JSC).

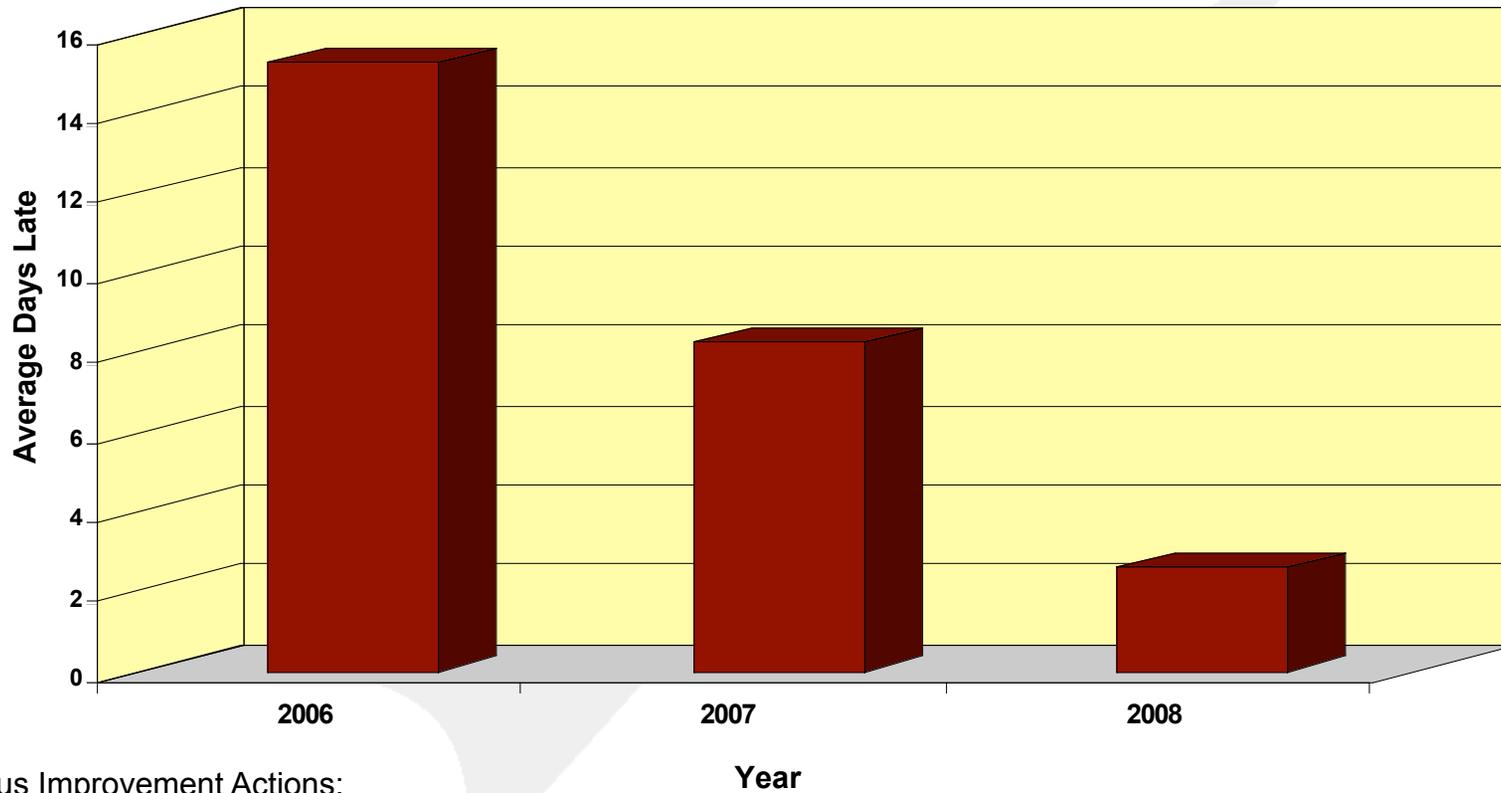
We found ESES Improvement Initiatives past 3 years were many

Examples: Continuous Improvement Initiatives

- ✓ *ISO Certification 2008 – flow down to ESES.*
- ✓ *AS9100 Certification – qualified Jan 2009.*
- ✓ *Strategic Development Action Team (SDAT) – year process to focus MEI for next growth phase 8(a) to Small Business to Large Business.*
- ✓ *Safety Initiatives – Resulted in “zero” incidences in 2008.*
- ✓ *Emphasis on New Technology Initiatives – 11 Submitted.*
- ✓ *ESES Developed Program Management Tool in 2008.*
- ✓ *IT Software System Implemented (ESES) - reduce loss of GSFC IT hardware.*
- ✓ *Tracking System Developed – reduce late vendor deliveries.*
- ✓ *Increased minority hiring / promotions.*
- ✓ *Increased fee sharing, year-end incentives for ESES employees.*

ESES Improvement Initiatives - past 3 years

Example: Purchase Order Delivery Improvement



Continuous Improvement Actions:

- 2006 Manual expediting system
- 2007 Implemented Automated monitoring / tracking system

Improving Delivery of Purchase Order Items

Example: Technology Initiatives

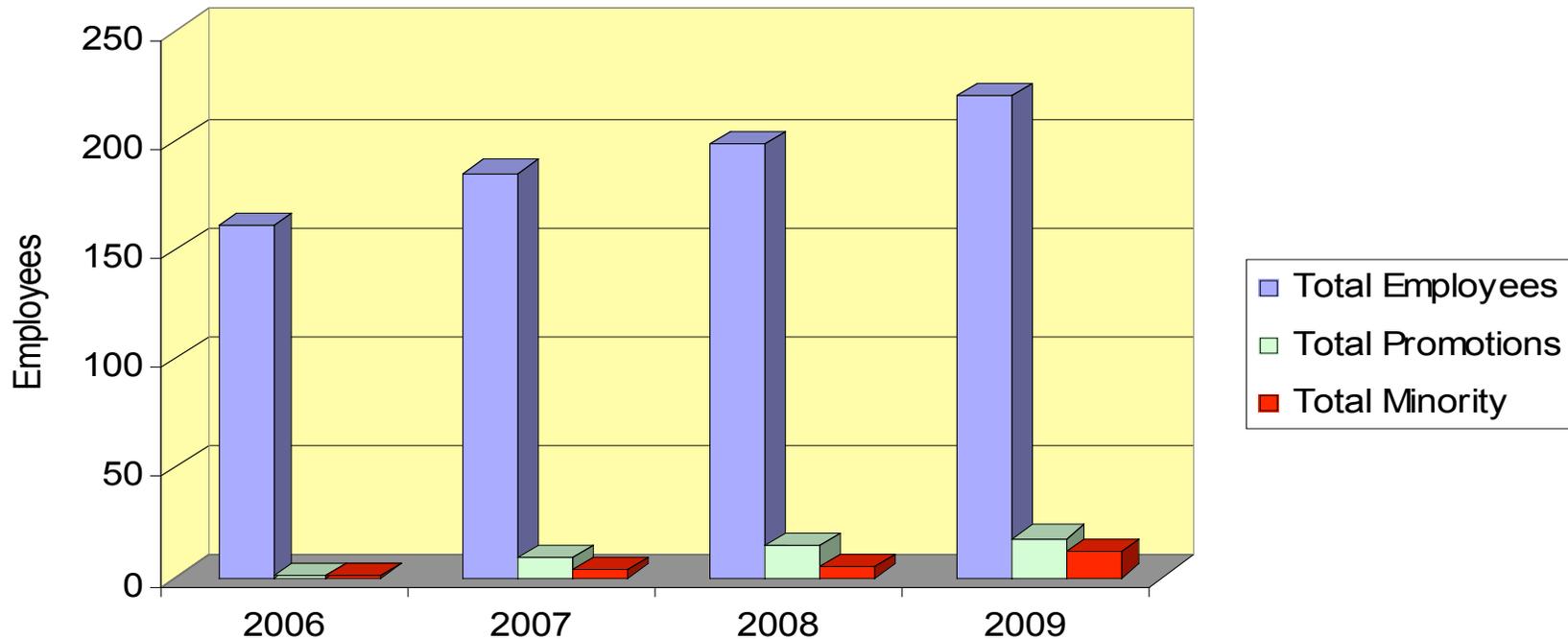
- High Performance AlGa_N Geomagnetic Sensor
- A two-axis direct fluid shear stress sensor
- Superior piezoresistive sensor designs
- A single or dual-axis micro shear sensor
- Fabrication of Antenna-Coupled Bolometer
- Large format AlGa_N Focal Plane Array UV camera
- Hybrid AlGa_N-SiC Avalanche Photo-Diode
- Large Format AlGa_N P-I-N Photodiode Arrays for UV Imagers
- Development of a silicon wafer-scale substrate
- Express Logistics Carrier Suitcase simulator Software
- An All-metal, Solderless Circularly Polarized Microwave Antenna
- A Quantum Well infrared Photodetector (QWIP)

ROSES Award: Hybridized Visible-NIR Blind (Al, In)Ga_N Focal Plane Arrays

MEI Encourages, Fosters New Technology Programs.
Stellar Nomination Highlights New Technology:
2009 three submitted; all selected by NASA

Example: Employee Growth / Morale

ESES Employee Growth – ESES Promotions



Employee Promotions:

- 2008 / 2009 Tools Implemented
- Assist in Tracking candidates for promotion
- Continuous Growth Programs

ESES Growth; Provides employee growth opportunities

Example: My MEI Newsletter (highlighting 2 ESES employees)



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Managing the various components of a spacecraft's power system is no easy task. But, MEI employs some of the best power system engineers around. **Brad Kercheval** and **Mike Burns** are two MEI power system engineers at our facility at the NASA Goddard Space Flight Center, located in Maryland. Both work on the Electrical System Engineering Services (ESES) contract, which is overseeing the design of the Global Precipitation Measurement (GPM) spacecraft. GPM is slated to launch from Japan in 2013. Brad is the Box Lead for the Battery Management Electronics Box, while Mike is the Box Lead for the Power System Electronics Box. We spoke with Brad and Mike to learn more about their work and interests.

Q: What responsibilities come with being a Box Lead?

A: We're in charge of the box electrical and mechanical design, from concept to post-launch operation. This includes design, manufacturing, testing, integration into spacecraft and operation during launch. We also provide training to the engineers who are in charge of flying the spacecraft.

Q: I understand you are a Box Lead for some upcoming programs?

A: Brad – I was the Power Systems Electronics Box Lead on the Lunar Crater Observation and Sensing Satellite (LCROSS), which will launch in April 2009 and search for ice on the Moon. In addition, I was the Solar Array Module Card Lead for two projects: the Solar Dynamics Observatory (SDO) spacecraft, a geo-stationary satellite launching in October 2009 to study solar weather; and the Lunar Reconnaissance Orbiter (LRO), which will launch in April 2009 and provide detailed topographical maps of the Moon.

Mike – I am the Power Systems Electronics Box Lead (as well as share responsibilities for the Power Subsystem Lead) for SDO, which Brad mentioned above.

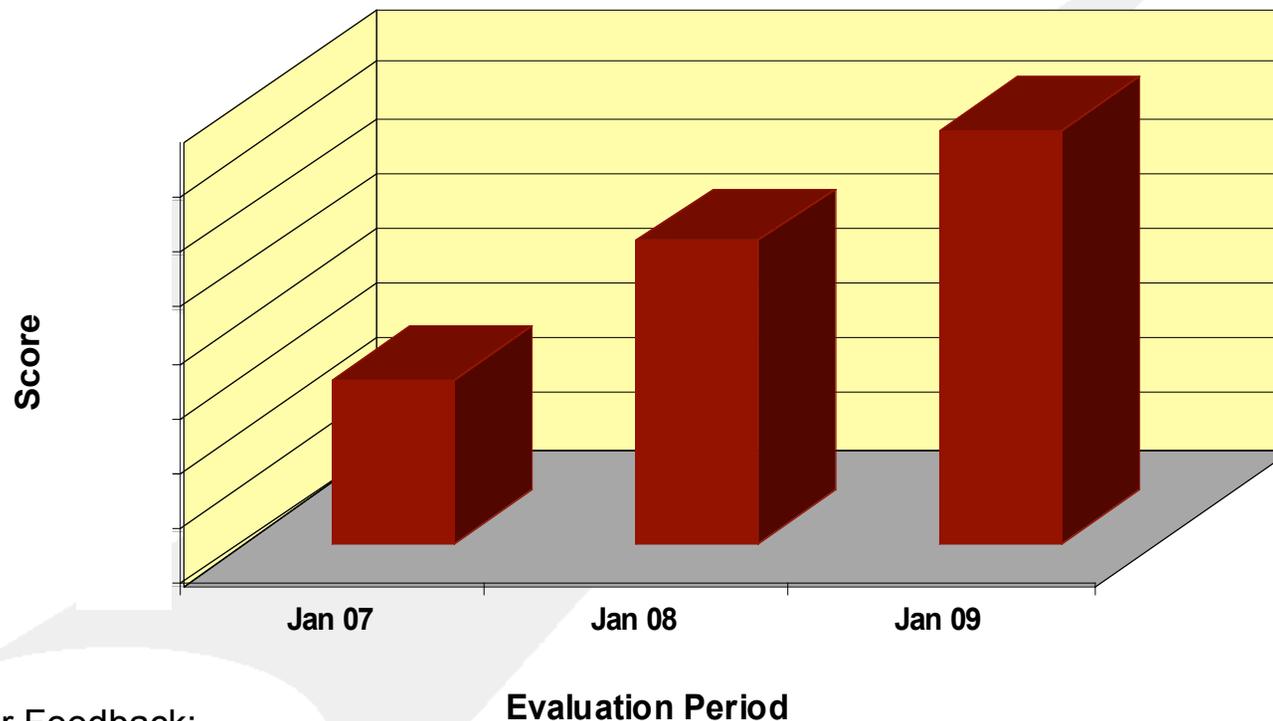
Example: Safety Records over the past 3 years.

Incidents	Fiscal Year 2007	Fiscal Year 2008	Fiscal Year 2009
Safety Incidents	2	0	0
Chemical Incidents	1	0	0
Employee Injuries	1	0	0
Lost Days from Work (Injuries)	5	0	0
Laboratory Shutdown Time	5	0	0

- Health and Safety System process improvement significantly improving our safety results:
 - Increased the amount/type of employee awareness training at the department level
 - Instituted mandatory training for employees at GSFC-provided training
 - Safety Awareness Campaign
 - Health and Safety Manager joined two additional safety-related committees allowing MEI to obtain pertinent information early and then providing this information to our ESES employees

For calendar year 2008 / 2009 - "zero" incidents reported

Example: Performance Evaluation Improvement (Award Fee Score)



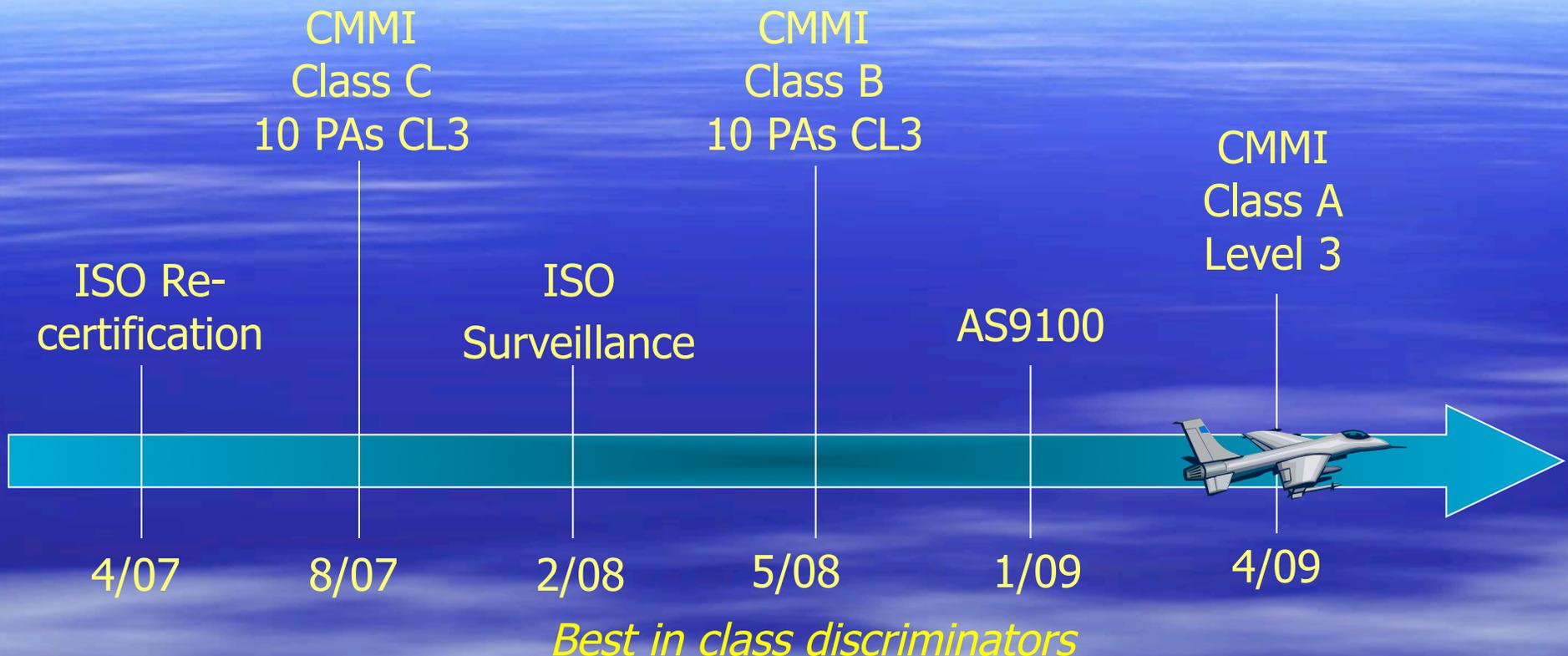
Award Fee Letter Feedback:

- Lower plan variances
- On Schedule – under budget
- Responsive to project needs

Evaluated: Technical, Management, Cost

MEI Continuous Improvement Journey

Member of the Northrop Grumman Mentor-Protégé program



Benchmarks are based on:

- Customer Performance Appraisal Reviews
- Independent Assessments (3rd Party)
- Process Improvements – Industry best practices from ISO, AS9100, CMMI

In working with large company customers, MEI adapts the customer's best-in-class services and products.

What The Award Means to MEI / Benefits

- Corporate:
 - Synergy between MEI Business Units.
 - Validation Corporate developing excellent “growth infrastructure.”
 - Qualifications for DoD, NASA and other “new business” pursuits.
- GSFC:
 - Satisfaction to be recognized by Customer as “best in class”.
 - Reputation a plus for new business pursuits / recompetes.
- Future:
 - Emphasis on “excellent” Processes / Continued Improvement.
 - Leads to employee & company growth opportunities.

Benefits are Great! Process alone is worth it – Strengthens company